RECLAMATION

Managing Water in the West

Biological Assessment

Central California Area Office Building Replacement Project, California
Mid-Pacific Region

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
California

December 2008

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Acronyms and Abbreviations

ADA	American's With Disabilities Act
BMP	Best Management Practice
BRP	Building Replacement Project
Caltrans	California Department of Transportation
CCAO	Central California Area Office
CDFG	California Department of Fish and Game
CNDDB	California Natural Diversity Database
Corps	U.S. Army Corps of Engineers
DBH	Diameter at Breast Height
DS/FDR	Dam Safety and Flood Damage Reduction
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
ESA	Federal Endangered Species Act
FONSI/EA	Finding of No Significant Impact/Environmental Assessment
LEED	Leadership in Energy and Environmental Design
NMFS	National Marine Fisheries Service
Reclamation	U.S. Bureau of Reclamation
U.S.C.	United States Code
USGBC	U.S. Green Building Council
USFWS	U.S. Fish and Wildlife Service
VELB	Valley Elderberry Longhorn Beetle

Chapter 1
Introduction

1.1 Introduction

The purpose of this initiation package is to review the Bureau of Reclamation's (Reclamation) proposed California Central Area Office Building Replacement Project (CCAO BRP) in sufficient detail to determine to what extent the proposed action may affect any of the threatened, endangered, proposed, or sensitive species and designated or proposed critical habitats listed below. In addition, the following information is provided to comply with statutory requirements to use the best scientific and commercial information available when assessing the risks posed to listed and/or proposed species and designated and/or proposed critical habitat by proposed federal actions. This initiation package is prepared in accordance with legal requirements set forth under regulations implementing Section 7 of the Endangered Species Act (50 CFR 402; 16 U.S.C. 1536 (c)).

1.2 Species-Critical Habitat Considered in This Document

Table 1 includes a list of all special-status species (federal and state listings) provided by U.S. Fish and Wildlife Service (USFWS) and downloaded from the California Natural Diversity Database (CNDDB) potentially occurring within the Folsom 7.5-minute quad. This table identifies species status, habitat requirements, and the likelihood of occurrence at the project site. Although this table includes both state and federally-listed species, this document will only discuss affects on federally-listed species with the potential to occur in the Action Area. Section 3 provides a brief description of those federally-listed species that have the potential or are likely to occur in the Action Area that will be considered in this biological assessment. The USFWS species list can be found in Appendix A.

Table 1

Special Status Species and Critical Habitat Summary

Species	***Federal Status/ Critical Habitat***	***State Status***	***Habitat Requirements***	***Likelihood of Occurrence in the Project Area***
Fish				
Sacramento River Winter-run ESU Chinook Salmon (*Onchorhynchus tshawytscha*)	FE/CH	SE	Ocean and freshwater rivers and streams	None – no waterbodies onsite
Central Valley Spring-Run ESU Chinook Salmon (*Onchorhynchus tshawytscha*)	FT/CH	ST	Ocean and freshwater rivers and streams	None – no waterbodies onsite
Central Valley ESU Steelhead (*Onchorhynchus mykiss*)	FT/CH		Ocean and freshwater rivers and streams	None – no waterbodies onsite
Delta Smelt (*Hypomesus transpacificus*)	FT/CH	ST	Freshwater rivers and streams.	None – no waterbodies onsite
Invertebrates				
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT/CH		Elderberry shrubs	Potential – elderberry shrubs occur onsite
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT/CH		Vernal pools and seasonal wetlands	None – habitat does not occur onsite
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)	FE/CH		Vernal pools and seasonal wetlands	None – habitat does not occur onsite
Conservancy Fairy Shrimp (*Branchinecta conservation*)	FE/CH		Vernal pools and seasonal wetlands	None – habitat does not occur onsite
Amphibians				
California red-legged frog (*Rana aurora draytonii*)	FT/CH	CSC	Quiet, permanent water in woods, forest clearings, riparian areas, and grasslands	Potential – isolated populations in the Folsom Reservoir area
California Tiger Salamander (*Ambystoma californiense*)	FT/CH	CSC	Grasslands and lowest foothill regions of Central and Northern California, which is where its breeding habitat (long-lasting rain pools) occurs. During dry-season, uses small mammal burrows as refuge	Unlikely - breeding habitat does not occur onsite

Table 1

Special Status Species and Critical Habitat Summary

Species	***Federal Status/ Critical Habitat***	***State Status***	***Habitat Requirements***	***Likelihood of Occurrence in the Project Area***
Western Spadefoot Toad (*Spea hammondii*)		CSC	Open areas with sandy or gravelly soils, in a variety of habitats. Rainpools are necessary for breeding.	Unlikely – breeding habitat does not exist onsite
Reptiles				
Giant Garter Snake (*Thamnophis gigas*)	FT	CT	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	None - waterbodies are not available onsite
Northwestern Pond Turtle *(Actinemys marmorata marmorata*)		CSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation. Nesting occurs in adjacent uplands.	Unlikely – waterbodies are not available onsite
Birds				
American peregrine falcon (*Falco peregrinus anatum*)	FD	CE/CFP	Protected edges of high cliffs, usually adjacent to marshes, lakes, or rivers that support plentiful bird populations.	Unlikely – habitat does not occur onsite
Swainson's Hawk (*Buteo swainsoni*)		CT	Open grasslands, prairies, farmlands, and deserts with trees for nesting.	Potential – limited habitat occurs onsite
Bald Eagle (*Haliaeetus leucocephalus*)	FD	CE/CFP	Ocean shore, lake margins and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine.	Potential – limited habitat occurs onsite
White-Tailed Kite (*Elanus leucurus*)		CFP	Agricultural areas, grasslands, marshes, savannas, and other open land or sparsely wooded areas.	Potential – limited habitat occurs onsite
Loggerhead Shrike (*Lanius ludovicianus*)		CSC	Edge habitat along roadsides and hedgerows in agricultural regions.	Potential - limited habitat occurs onsite
Tricolored Blackbird (*Agelaius tricolor*)		CSC	Ponds and other wet areas with abundant vegetation for nesting and adjacent grasslands for foraging.	Unlikely – habitat does not occur onsite
Mammals				
Pallid Bat (*Antrozous pallidus*)		CSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open dry habitats with rocky areas for roosting. Also may use hollow trees and abandoned buildings	Potential – trees onsite could provide limited roosting habitat

Table 1

Special Status Species and Critical Habitat Summary

Species	***Federal Status/ Critical Habitat***	***State Status***	***Habitat Requirements***	***Likelihood of Occurrence in the Project Area***
Plants				
Brandagee Clarkia (*Clarkia biloba ssp. brandegeeae*)		CNPS 1B	Chaparral and cistmontane woodlands	Potential – habitat occurs onsite
Pincushion Navarretia (*Navarretia myersii ssp. myersii*)		CNPS 1B	Vernal pools	None – habitat does not occur onsite
Sacramento Orcutt Grass (*Orcuttia viscid*)	FE/CH	CE, CNPS 1B	Vernal pools	None – habitat does not occur onsite

Acronyms and Abbreviations:

CCH	=	Candidate Critical Habitat	CSC	=	California Species of Concern
CE	=	State Endangered	FE	=	Federal Endangered
CT	=	State Threatened	FSC	=	Federal Species of Concern
CFP	=	California Fully Protected	FT	=	Federal Threatened
CH	=	Critical Habitat	FD	=	Federal Delisted
CNPS 1B	=	California Native Plant Society List 1B	PCH	=	Proposed Critical Habitat

1.3 Consultation to Date

The species list for the project was obtained from the Sacramento USFWS website. To date the only other contact with the USFWS regarding this project were valley elderberry longhorn beetle surveys conducted on October 22, 2008 with Stephanie Rickabaugh of the USFWS and informal consultation in the form of email correspondence between Reclamation, Reclamation's consultant, and Ms. Rickabaugh throughout November and early December 2008. Projects will be coordinated with the appropriate local, state, and federal agencies including USFWS, U.S. Army Corps of Engineers (Corps), and the California Department of Fish and Game.

1.4 Current Management Direction

The following discussion outlines Reclamation's Federal Endangered Species Act (ESA) policy.

Federal agencies must request that the USFWS or National Marine Fisheries Service (NMFS), as appropriate, furnish information as to whether any listed species or designated critical habitat are in the proposed project area. If the USFWS/NMFS provides listed or proposed species or designated critical habitat, Reclamation shall prepare a biological assessment to determine if the proposed project may affect the species or their habitat.

The finding, by Reclamation, that a proposed construction or operational activity will negatively impact an endangered or threatened species, or its critical habitat, will initiate the preparation of a biological opinion by the USFWS and/or NMFS. This biological opinion will include a detailed discussion of the effects of the proposed action on the species or its critical habitat, and a summary of the information upon which the opinion is based. The biological opinion will also include a determination on whether the proposed action is likely to jeopardize the continued existence of a listed species or adversely modify its critical habitat. If a jeopardy decision is reached, the resource agencies will suggest reasonable and prudent alternatives for the proposed action, if any are possible. Reclamation is required to carefully consider the reasonable and prudent measures to protect and conserve the species and critical habitat.

An incidental take provision is included in all biological opinions, where an anticipated take may occur, whether there is a "no jeopardy" or "likely jeopardy" opinion. This provision permits Reclamation to "take" a specified number of the protected species, or impact a specified acreage of habitat in the project area, without being subject to the penalties established in 16 U.S.C. 1540. The incidental take statement will also specify "reasonable and prudent" measures necessary to minimize impacts; set for terms and conditions; and specify procedures to be used to handle or dispose of any individuals of a species taken.

Chapter 2
Proposed Action

2.1 Applicant

Reclamation is planning on constructing the new facilities described below.

2.2 Project Background

The Proposed Action would involve construction of new facilities at the CCAO Headquarters in Folsom, California, in order to provide a safe, secure, accessible, and efficient site environment for CCAO staff and visitors. The new facilities would be sited to work with existing topography, paved areas, and roads to minimize earthwork, demolition, and construction costs. Ample space would be provided for access of firefighting equipment.

2.3 Proposed Action

The Proposed Action would be implemented in two phases:

- Phase 1 – Construction of a new maintenance center in the vacant storage yard area, relocation and transfer of personnel and equipment to the new maintenance center, and removal of the existing maintenance building.

- Phase 2 – Construction of a new CCAO administration building with adjoining staff and visitor parking, transfer of personnel to the new administrative building, and disposal of the existing administrative building.

2.3.1 Phase 1 - CCAO Maintenance Center

The proposed maintenance center would consist of two interconnected pre-engineered metal buildings, (11,920 and 3,045 square feet). There would also be a 5,320 square foot structure, attached to the larger pre-engineered building.

The 11,920 square-foot pre-engineered metal building would house a carpenter shop with covered wood storage, a vehicle repair shop with two bays and office space, a drive-thru wash rack and water recycler, miscellaneous equipment and parts storage, and space for mechanical, electrical, and communication equipment.

The 3,045 square foot pre-engineered metal building would house a drive-thru paint booth and sand blasting area, a compressor room, a sand storage and reclamation room, office space, and a paint storage room.

The attached 5,320 square foot structure would house the offices, kitchen/break room, assembly/conference room, toilet and locker rooms, miscellaneous tool and equipment storage areas, and an area for the shop dust collector.

The Maintenance Building would be designed to meet American's with Disabilities Act (ADA) accessibility requirements and would incorporate sustainable design measures outlined in the US Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

Approach by vehicle to the maintenance center would be improved by regrading the access road to the site with a vertical profile that meets the California Department of Transportation (Caltrans) standards. A portion of the electrical duct bank would have to be relocated to accommodate the maintenance building. If kept by CCAO, the existing above ground fuel tanks would be relocated to a less vulnerable location and placed for better vehicle access.

For a cleaner appearance, the office component of the maintenance building would be sited in the foreground, as seen from the access road, while visually screening the maintenance bays and service areas behind.

2.3.2 Phase 2 - CCAO Administration Building

The proposed administration building would consist of two, two-story rectangular structures offset and attached side by side, each approximately 13,100 square feet.

The Administration Building would be designed to meet ADA accessibility requirements and will incorporate sustainable design measures outlined in the USGBC LEED Green Building Rating System.

A 25 car visitor parking lot would be separate from a 75 car employee parking area. Visitor vehicles will be kept within close proximity of the site entrance and guard station and the visitor entrance to the administrative offices would be visible, and obvious.

To improve the appearance of the CCAO's main entrance, the state's vehicle storage and maintenance center near the main gate would be visually screened with landformed earthen berms and plantings. Almost all existing trees and the outdoor picnic area would be preserved and protected during construction. New trees and drought resistant (xeric) landscaping would be installed to provide visual relief, shade, and screening of adjacent parking areas.

2.3.3 CCAO Building Replacement Project Schedule

As described above the CCAO BRP would be implemented in two phases. Table 2 presents the project schedule as of December 2008. Construction is expected to take approximately 8-12 months.

Table 2
CCAO Building Replacement Project Schedule

Phase	*Action*	*Schedule*
1	Construction of new maintenance center and removal of existing maintenance building.	Fall 2009
2	Construction of new CCAO administrative building and disposal of existing building.	Winter/Spring 2010

2.4 Action Area

Folsom Reservoir is on the American River, 20 miles northeast of Sacramento, California and immediately upstream of the town of Folsom, California. The reservoir has a capacity of just over 1 million acre-feet and a surface area of 11,450 acres. Associated with the reservoir are numerous recreation facilities, managed by the California Department of Parks and Recreation, including 50 miles of trails for hiking and horseback riding.

The CCAO BRP Proposed Action Area is located within the existing site for the CCAO. Upland communities within the Action Area include interior live oak woodland and California annual grassland. Riparian, aquatic and seasonally wet areas do not occur onsite. Developed areas within the Action Area include existing offices and maintenance facilities.

The total area potentially affected includes 10 acres of the current CCAO facilities site. Figure 1 displays the Action Area (project footprint, clearing and grubbing, and staging area).

2.5 Conservation Measures

Reclamation proposes the following conservation measures for the valley elderberry longhorn beetle and the California red-legged frog. The following conservation measures are subject to and contingent upon a Section 7 consultation with the USFWS.

Valley Elderberry Longhorn Beetle
Reclamation will implement the following measures proposed in the VELB Conservation Guidelines (USFWS 1999).

Where possible, complete avoidance of the elderberry shrubs would be enforced. Avoidance measures would include the establishment and maintenance of a 100 foot buffer zone surrounding elderberry shrubs containing stems measuring 1.0 inches or

greater in diameter at ground level. The proposed staging area and access roads contain elderberry shrubs that would be within 20 feet of Project activities. These shrubs; however, are currently exposed to ongoing Reclamation operation and maintenance (O&M) activities similar to the proposed Project (the Service issued a BO for CCAO O&M actions). All elderberry shrubs within 20 feet of Project activities will also be flagged or fenced for easy identification. Construction crews will be briefed on the need to avoid elderberry shrubs and no vehicles will enter within the 20 feet buffer zone.

Additionally, the following dust control measures will be implemented:

- Water or otherwise stabilize the soil prior to ground disturbance
- Cover haul trucks
- Employ speed limits on unpaved roads
- Apply dust suppressents
- Physically stabilize soil with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization
- Reduce number of vehicle trips
- Install one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved public roadway to control carry-out and trackout
- Minimize vegetation clearing
- Revegetate post-construction

Elderberry shrubs that cannot be avoided would be transplanted if technically feasible. All elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level would be transplanted to a Service approved conservation area between November 1, 2008 and February 15, 2009.

Each elderberry shrub with stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected would be compensated with elderberry seedlings or cuttings in accordance with the Service's 1999 VELB Guidelines (Guidelines). Elderberry shrubs that cannot be feasibly transplanted will be compensated at a ratio two-times the normal amount. A minimum survival rate of at least 60 percent of the elderberry shrubs would be maintained throughout the monitoring period. If survival drops below this level, additional seedlings would be planted. Stock for plantings would be obtained from local sources.

Native plants associated with elderberry sbrubs at the Action Area or similar reference sites would be planted in accordance with the Guidelines. A minimum survival rate of at least 60 percent of the associated native plants would be maintained throughout the monitoring period. If survival drops below this level, additional seedlings or cuttings would be planted. Only stock from local sources would be used, unless such stock is not available, per the Guidelines.

California Red-Legged Frog

Prior to project activities, a United States Fish and Wildlife Service (Service) approved biologist would conduct surveys to ensure no California red-legged frogs are present within or near the proposed project area. If any California red-legged frogs are observed within or near the Project area, Reclamation will reconsult with the Service.

2.6 Interrelated and Interdependent Actions

There are no known interdependent and interrelated actions.

Chapter 3
Species Accounts and Status of Species in the Action Area

Two federally-protected species were identified as potentially occurring in the Action Area. These species are valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) and California red-legged frog (*Rana aurora draytonii*). This information was taken from the *Supplemental Biological Assessment to the Folsom Dam Safety and Flood Damage Reduction Project* (Reclamation 2008a) and updated for this project.

3.1 Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphis*) was federally listed as threatened in 1980 (Federal Register 1980). Critical habitat has been designated for this species, but includes no land in the Action Area (Federal Register 1980).

3.1.1 Natural History

This species is associated with various species of elderberry (*Sambucus* spp.). While the beetle historically ranged throughout the Central Valley, recent surveys suggest the beetle is now restricted to scattered localities along the Sacramento, American, San Joaquin, Kings, Kaweah, and Tule rivers and their tributaries.

This species generally occurs in savanna areas and along waterways and in floodplains that support remnant stands of riparian vegetation containing elderberry shrubs. In order to serve as habitat, elderberry stems must be greater than 1.0 inches in diameter at ground level (DBH). In a comprehensive 1991 survey conducted by the USFWS, 50 percent of exit holes were found on branches between 2-4 inches in diameter. Occasional exit holes were found on branches thinner than 1.5 inches in diameter and no exit holes were found on branches measuring less than 0.6 inches in diameter at ground level. Most exit holes are found in mature, healthy and unstressed plants (Barr 1991).

Both larvae and adult VELB feed on elderberry shrubs. Females mate and lay eggs in crevices in the elderberry bark. As larvae hatch they bore into the tree where they feed internally on the pith of the trunk and larger branches where they may stay up to two years.

VELB larvae chew an exit hole in the elderberry trunk, through which the adult beetle later exits the plant (CDFG 2003). Larvae then pupate and emerge as adult

beetles. Adults are active between March and June when they will feed externally on elderberry flowers and foliage and mate (USFWS 2006).

3.1.2 Status within the Action Area

The Action Area includes blue elderberry (*Sambucus mexicana*), the obligate host of the VELB. No exit holes have been observed in the elderberry shrubs in the Action Area; however, exit holes have been observed elsewhere in the Folsom area. Therefore this species is assumed to occur within the Action Area.

Because of the high probability of the occurrence of VELB in the Action Area, protocol surveys were conducted by both CDM and USFWS. Surveys for VELB record the number of elderberry shrubs, their stem diameters at ground level, and the presence and number of exit holes formed by VELB as they exit the branch. The surveys for VELB resulted in the recording of 32 elderberry shrubs within the Action Area or 100 feet of this area. The plants that are within the Clearing & Grubbing area (Figure 1) will be directly affected and Reclamation is proposing the transplant of these 10 shrubs. The plants in the 100-foot buffer area would be indirectly affected by dust or other construction-related consequences and will be fenced with orange construction fencing to avoid any direct affects.

Tables 3 and 4 provide stem count and mitigation information.

Table 3

Stem Counts

	Max Diameter at Ground Level[1]				**Exit Holes?[2]**	**Riparian?**	**Transplant?**
Stem ID#	*<1*	*1≥3*	*3≥5*	*>5*	*Y / N*	*Y / N*	Y/N
1		5	5		N	N	N
2	1	3			N	N	N
3	3	5			N	N	N
4	18	15	5	5	N	N	N
5	1			1	N	N	N
6	1	1	1		N	N	N
7	20	8	2	2	N	N	N
8				1	N	N	N
9		1	1	1	N	N	N
10				1	N	N	N
11	3	1	1	1	N	N	N
12	10	3	2		N	N	N
13		3	1		N	N	N
14	3	1			N	N	N
15	7	1	1	3	N	N	**Y**
16		1	2	5	N	N	**Y**
17	12	5	2	2	N	**R**	**Y**
18	2	3	2	1	N	N	**Y**

Table 3

Stem Counts

	Max Diameter at Ground Level[1]				Exit Holes?[2]	Riparian?	Transplant?
Stem ID#	*<1*	*1≥3*	*3≥5*	*>5*	*Y / N*	*Y / N*	Y/N
19	2			1	N	N	**Y**
20	1			1	N	N	**Y**
21				1	N	N	N
22				1	N	N	**Y**
23				1	N	N	**Y**
24	6	6	1	1	N	N	**Y**
25		3			N	N	**Y**
26		3	1		N	N	N
27			1		N	N	N
28			1		N	N	N
29	2	6	1		N	N	N
30	7	1	1	1	N	N	N
31		2			N	N	N
32		1			N	N	N

1 Shrub diameters will be measured at the soil level unless excessive woody debris, vines, or duff preclude this action. In this case duff and debris will be compacted as much as possible and the measurement will be taken at the lowest possible location.

2 All stems measuring one inch or greater in diameter at ground level on a single shrub are considered occupied when exit holes are present anywhere on the shrub.

Table 4

CCAO Elderberry Mitigation

Location	Stems	Exit Holes on Shrub	Elderberry Seedling Ration	Associated Native Plant Ratio	Total # Stems	Elderberry Seedling Mitigation	Associated Native Plant Mitigation
Non-riparian	>=1" & =<3"	No	1:1	1:1	14	14	14
		Yes	2:1	2:1	0	0	0
Non-riparian	>3" & <5"	No	2:1	1:1	6	12	12
		Yes	4:1	2:1	0	0	0
Non-riparian	>=5"	No	3:1	1:1	14	42	42
		Yes	6:1	2:1	0	0	0
Riparian	>=1" & =<3"	No	2:1	1:1	5	10	10
		Yes	4:1	2:1	0	0	0
Riparian	>3" & <5"	No	3:1	1:1	2	6	6
		Yes	6:1	2:1	0	0	0
Riparian	>=5"	No	4:1	1:1	2	8	8
		Yes	8:1	2:1	0	0	0
					Totals	*92*	*92*

3.2 California Red-Legged Frog

The California red-legged frog (*Rana aurora draytonii*) is federally listed as threatened (Federal Register 1996) and is a California species of special concern. Critical habitat was designated in 2001. However, on November 6, 2002, the U.S. District Court for the District of Columbia entered a consent decree, vacating the critical habitat designation (except Units 5 and 31) and remanding the designation to the USFWS to conduct an economic analysis. The USFWS released a recovery plan in 2002 (USFWS 2002). Critical habitat was again proposed on November 3, 2005 (Federal Register 2005), and the final rule was published on April 16, 2006 (Federal Register 2006). No critical habitat is within the Action Area.

3.2.1 Natural History

Historically, the California red-legged frog occurred in coastal mountains from Marin County south to northern Baja California, and along the floor and foothills of the Central Valley from about Shasta County south to Kern County (Jennings et al. 1992). Currently, this subspecies generally only occurs in the coastal portions of its historic range; it is apparently extirpated from the valley and foothills and in most of southern California south of Ventura County.

California red-legged frogs are usually associated with aquatic habitats, such as creeks, streams and ponds, and occur primarily in areas having pools approximately 3 feet deep, with adjacent dense emergent or riparian vegetation (Jennings and Hayes 1988). California red-legged frogs generally seem to stay near aquatic habitats, however, they are known to travel large distances seasonally within their local aquatic and terrestrial habitats (Jennings and Hayes 1994). Adults move between breeding and foraging habitats in spring and summer (Jennings and Hayes 1994). A few records exist that may indicate that they move into terrestrial riparian thickets during the fall (Jennings and Hayes 1994). During high water, this species are rarely observed (Jennings and Hayes 1994). Some individuals have been observed concealed in pockets or small mammal burrows beneath banks stabilized by shrubby riparian growth during periods of high water (Jennings and Hayes 1994), however much of the spatial ecology of this species is poorly understood.

California red-legged frogs breed from November to March. Egg masses are attached to emergent vegetation (Jennings and Hayes 1994) and hatch within fourteen days. Metamorphosis generally occurs between July and September. Post-metamorphs grow rapidly; males can reach sexual maturity by their second year after metamorphosis and females by their third year. Both sexes may not reproduce until three or four years after metamorphosis (Jennings and Hayes 1994).

3.2.2 Status within the Action Area

Although perennial and intermittent creeks and Folsom Reservoir may provide marginally suitable habitat for this species (according to CNDDB, a juvenile California red-legged frog was observed along a small drainage adjacent to Fitch

Way on the east side of the reservoir approximately one mile up the South Fork American River arm), within the Action Area none of these exist. The Action Area consists of developed and upland habitats and there have been no recorded sightings of the California red-legged frog within or near the Action Area Therefore, it is unlikely that this species occurs within the Action Area.

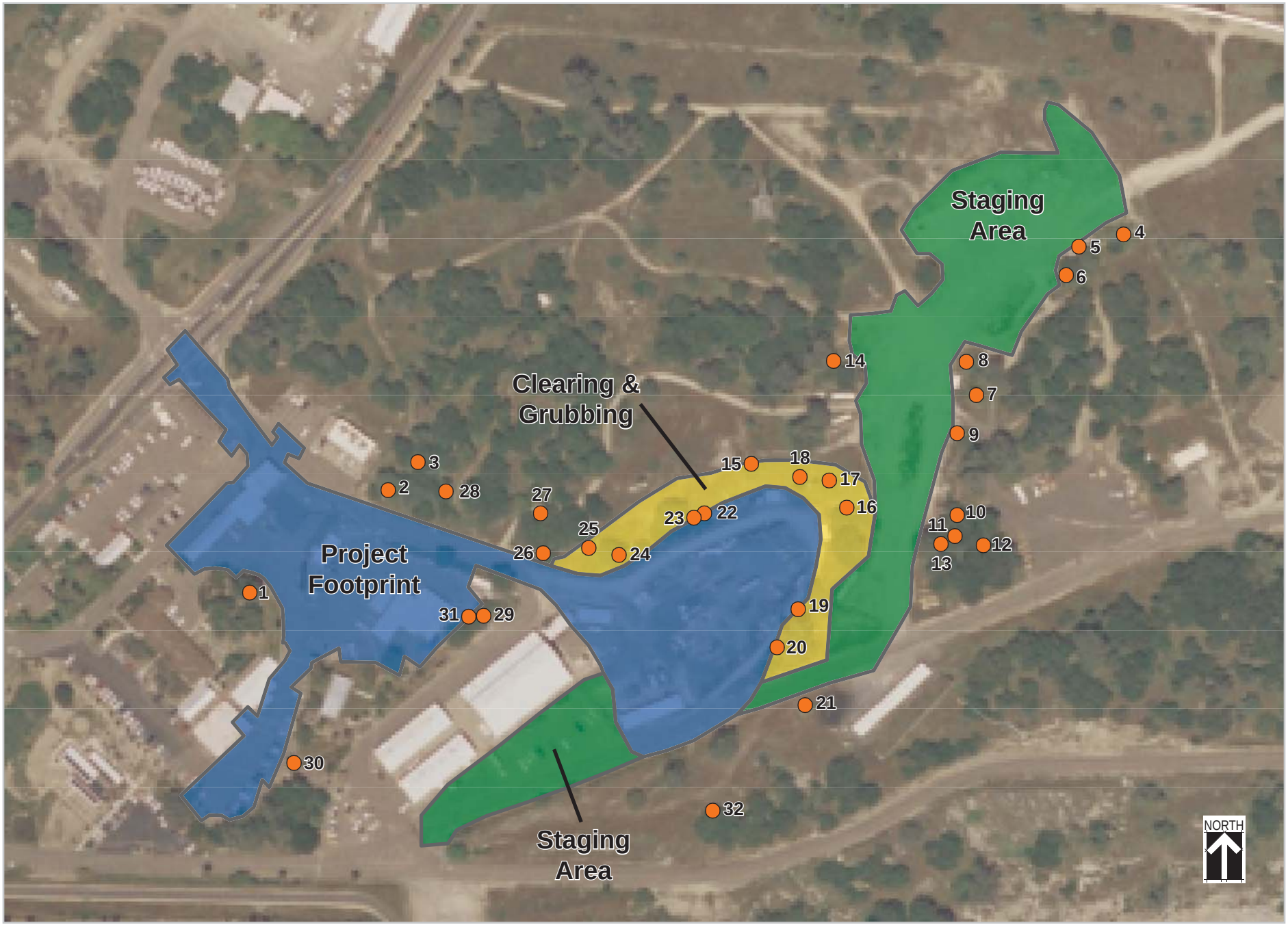

Figure 1
Elderberry Shrubs
Central California Area Office

CDM

Chapter 4
Environmental Baseline and Analysis of Effects

4.1 Environmental Baseline

The environmental baseline is part of regulations implementing Section 7 of the ESA. The baseline summarizes the past and present impacts of federal, state or private actions and other activities in the action area. The environmental baseline also lists the anticipated effects of all proposed federal projects in the action area that have undergone Section 7 consultation, and the impacts of state and private actions that are contemporaneous with the consultation in progress (50 C. F. R. 402.02).

4.1.1 Land Use

The CCAO facilities are located immediately below Folsom Dam just off of Folsom-Auburn Road and north of the American River. CCAO facilities currently consist of office and maintenance buildings, storage buildings parking lots, and paved and unpaved roads. Adjacent land uses include the Folsom Reservoir, American River, Folsom Bridge project, American River Watershed Education Center Facilities, and San Juan Water District facilities. CCAO facilities are surrounded by the Folsom Lake State Recreation Area.

4.1.2 Vegetation

Vegetation in the CCAO area includes interior live oak woodlands and grassland, and landscaped and developed areas (LSA 2003). According to the Folsom Lake State Recreation Area Draft Resource Inventory (LSA 2003) interior live oak woodland:

> "… is unique to California because the dominant and subdominant woody species are all California natives. It extends through the North Coast range and the western slopes of the Sierra foothills, occurring as savanna or woodlands on slopes and in valleys on shallow well-drained soils (Sawyer & Keeler-Wolf 1995). At higher elevations (typically below 5,000 feet) on north aspects, canopy cover tends to increase (Griffin 1990, Pavlik et al. 1991). Interior live oak is not restricted to a particular type of soil, although it does not occur on serpentine (Pavlik et al. 1991).
>
> … The interior live oak canopy varies substantially. In most locations, the canopy is near-continuous, while in some areas it may have a more open woodland appearance. Scattered foothill pines extend above the oak canopy in both closed and open woodlands. Where the upper canopy is dense, shrubs

> are common in the understory but the groundcover is sparse. Where the upper canopy is more open, shrubs are less common and grasses dominate the groundcover. The interior live oak series intergrades with blue oak series.
>
> ... In addition to the evergreen interior live oak, the canopy includes sub-dominants foothill pine, black oak (*Quercus kellogii*) and blue oak (*Quercus douglasii*). The shrub layer in the Unit is dominated by poison oak (*Toxicodendron diversilobum*) and California buckeye (*Aesculus californica*), while the understory is dominated by blue wild rye (*Elymus glaucus*), hedgehog dogtail (*Cynosurus echinatus*) and ripgut brome (*Bromus diandrus*)."

According to the Folsom Lake State Recreation Area Draft Resource Inventory (LSA 2003):

> "Originally, grassland probably covered well-drained areas in California from sea level to approximately 3,600 feet in elevation (Barbour and Major 1990). Grasslands ringed the Central Valley and were dotted along the coast. Purple needlegrass is thought to have been the dominant grass of pristine valley grasslands (Barbour and Major 1990). Since then, nonnative annual grasses and forbs have come to dominate the region's grasslands as they have elsewhere in California. Human introduction of non-native plants into California began with the European settlements in the 18th century and continues today. With a few notable exceptions (see below), all of the grassland areas in the Unit can be classified as non-native because they have an insignificant amount of native grass cover, and are overwhelmingly dominated by non-native annual grass species. Because exotic annual grasses are so abundant and native grasses so rare throughout the state, the California Department of Fish and Game has defined "native grassland" as having a minimum of 10 percent cover of native grass species (Todd Keeler-Wolf, pers. com.). Very few grassland areas in the Unit meet even this minimal definition.
>
> … Annual grassland is typically composed of a dense cover of annual grasses and broadleaved plants (forbs) adapted to colonizing and persisting in disturbed areas. The height of the vegetation is approximately three feet. An occasional blue oak intrudes into the grasslands of the Unit, which are defined as having less than 10 percent tree canopy cover (Barbour and Major 1990).
>
> ... The dominant grasses in this community are brachypodium (*Brachypodium distachyon*), ripgut brome, soft chess brome and wild oats (*Avena fatua*). Although this community is dominated by non-native species, native grasses and wildflowers are present in varying degrees. Invasive exotic

pest plants, primarily yellow starthistle (*Centaurea solstitialis*), medusa head (*Taeniatherum caput-medusae*) and mustard (*Brassica nigra*) are common associates."

4.1.3 Wildlife

The CCAO area provides interior live oak woodland and grassland habitat for a variety of species. According to the Folsom Lake State Recreation Area Draft Resource Inventory (LSA 2003):

> "Grassland/savanna habitat provides valuable forage for a large number of herbivorous species. Insects are common grassland/savanna herbivores and include grasshoppers (*Melanoplus devastator*), Jerusalem cricket (*Stenopelmatus fuscus*), and caterpillars. Rodent species such as deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*) and California ground squirrel (*Spermophilis beechyii*) are also common herbivores in this habitat. Other species, such as song sparrows (*Melospiza melodia*), dark-eyed junco (*Junco hyemalis*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus auduboni*) and mule deer (*Odocoileus hemionus*), prefer the cover provided by the denser vegetation in adjacent woodland and chaparral habitats, but nevertheless frequently move into grassland and savanna habitats to forage.
>
> The large number of herbivores foraging in grasslands and savannas provide a substantial prey base for many predatory species. In particular, an extensive insect prey base supports a large number of insectivorous predators that occupy several different niches in grassland habitats. Western kingbird (*Tyrannus verticalis*), western flycatcher (*Empidonax difficilis*), dragonflies (*Odonata*), and bats (*Myotis* sp.) feed on flying insects from the air. Yellowbilled magpie (*Pica nuttalli*) and loggerhead shrike (*Lanius ludovicianus*) feed on large insects such as butterflys and grasshoppers within the grasses and on the ground. California mantid (*Stagmomantis californica*), western toad (*Bufo boreas*), Gilbert's skink (*Eumeces gilberti*), southern alligator lizard (*Elgaria multicarinata*), and shrews (*Sorex* spp.) capture ground dwelling insects in the grasses and under surface objects.
>
> Larger predators, such as common king snake (*Lampropeltis getula*), red-tailed hawk (*Buteo jamaicensis*), and coyotes (*Canis latrans*) commonly prey on rodents and insectivorous animals in grasslands and savannas. Raptors, including red tailed hawk, white-tailed kite (*Elanus leucurus*), and golden eagle (*Aquila chrysaetos*) will typically forage in these habitats and will sometimes nest in nearby trees."

According to the Folsom Lake State Recreation Area Draft Resource Inventory (LSA 2003):

"Several wildlife species depend on woodland trees and shrubs for much of their habitat requirements. Some insect species, such as longhorn beetles (*Cerambycids*) bore into tree trunks to feed on pith and other interior tree parts. Other insect species, like underwing moths (*Catocala* sp.), hide in bark cavities. Several woodland and forest insectivores have specialized behaviors to locate insects in trees. Acorn woodpeckers (*Melanerpes formicivorus*) consume insects on and under the bark of trees, as do Nuttall's woodpecker (*Picoides nuttallii*). Western fence lizards, (*Sceloporus occidentalis*), brown creepers (*Certhia americana*) and white-breasted nuthatch (*Sitta carolinensis*) climb tree trunks searching for insects hidden in the bark.

Foothill pines are an important component of the oak woodland habitat for wildlife. Bald eagles and golden eagles us foothill pines as roosting sites. Herons and egrets use foothill pines as nesting sites in locations where oak woodlands occur in the vicinity of Folsom Lake and Lake Natoma.

Many insects, such as caterpillars and aphids, feed on the leaves, buds, and fluids of trees and shrubs. These herbivorous insects are, in turn, eaten by predacious insects such as lady bugs (*Hippodamia* sp.) and mantids. Birds that glean insects from foliage and branches include Hutton's vireo (*Vireo huttoni*), yellow-rumped warbler (*Dendroica coronata*), black-throated gray warbler (*Dendroica nigrescens*), and oak titmouse (*Baeolophus inornatus*). Western bluebird (*Sialia mexicana*) and American robin (*Turdus migratorius*) also forage for insects in woodland habitats during the nesting season.

The trees in the Unit's woodlands provide numerous nesting locations and perching sites for birds. Ash-throated flycatcher (*Myiarchus cinerascens*) and western scrub-jay (*Aphelocoma californica*) commonly use oak woodlands for perches, food, and nesting. Large trees provide nesting sites for golden eagle and red-tailed hawk, which require the height of tall trees to protect their nests. Holes and other openings in trees provide nest locations for cavity nesters such as western bluebird, American kestrel (*Falco sparverius*) and screech owl (*Otus kennicottii*). Acorn woodpeckers nest within cavities in the dead wood of live or dead trees (Zeiner et al. 1990a).

Oak mast (acorns) is an important food source for many wildlife species including acorn woodpecker and band-tailed pigeon (*Columba fasciata*). Acorn woodpeckers use live and dead trees for granaries. Common woodland seed eating birds include California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), and house finch (*Carpodacus mexicanus*). Western gray squirrel (*Sciurus griseus*) and mule deer also consume oak mast in large quantities.

The tree and shrub canopies of oak woodlands slow the rate of evaporation by protecting soil moisture from the effects of the sun (Barbour and Major 1990). This permits wildlife species with higher moisture demands to survive in otherwise xeric conditions. For example, several salamander species that occur in the Unit, such as ensatina (*Ensatina eschscholtzii*), California newt (*Taricha torosa*) and slender salamander (*Batrachoseps attenuatus*), require the cooler, shaded conditions available in woodlands and forests.

The dense vegetation in oak woodlands provides concealment for predators. Large predators such as mountain lion (*Felis concolor*) and bobcat (*Felis rufus*) are able to conceal themselves behind trees or in the shadows of vegetation as they hunt. Raptors such as Cooper's hawk, red-tailed hawk, and western screech owl fly over and forage in woodland habitat, and nest in woodland trees. Great horned owl (*Bubo virginianus*) will make low, rapid flights from tree perches to capture rabbits, rodents and other prey that inhabit the woodland habitat (Zeiner et al. 1990a).

4.2 Analysis of Effects

The effects of the Proposed Action were estimated based on the following conditions pertaining to implementation:

- Implementation of a spill prevention plan would reduce the risk of fuel or oil spills from construction and transportation equipment.
- Implementation of Best Management Practices (BMPs) would control soil erosion due to construction activities, and minimize potential construction-related effects on water quality.
- Dust control measures would be implemented.
- Where possible natural resources would be preserved in their existing condition or restored to an equivalent condition upon completion of the work.
- Where possible existing trees within construction areas would be protected.

4.2.1 Valley Elderberry Longhorn Beetle

4.2.1.1 Analysis of Effects

Actions resulting in the loss of elderberry shrubs, the obligate host plant of the VELB, in the Action Area may result in adverse effects to individual beetles, pupae, or larvae as well as loss of habitat. The following conservation measures are summarized from the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). Additionally, a portion of construction would take place during the shrub's dormant season; therefore, effects would be further reduced.

Within the boundaries of the Action Area, beetles inhabiting elderberry shrubs in the Proposed Action would be directly affected by activities by removal of or direct impacts to elderberry shrubs or indirectly affected by dust and vibration.

4.2.1.2 Proposed Conservation Measures

The following conservation measures are subject to and contingent upon a Section 7 consultation with USFWS. Reclamation will implement the following measures proposed in the VELB Conservation Guidelines (USFWS 1999).

Where possible, complete avoidance of elderberry shrubs would be enforced. Avoidance measures would include the establishment and maintenance of a 100 foot buffer zone surrounding elderberry shrubs containing stems measuring 1.0 inches or greater in diameter at ground level. The proposed staging area and access roads contain elderberry shrubs that would be within 20 feet of Project activities. These shrubs; however, are currently exposed to ongoing Reclamation operation and maintenance (O&M) activities similar to the proposed Project (the Service issued a BO for CCAO O&M actions). All elderberry shrubs within 20 feet of Project activities will also be flagged or fenced for easy identification. Construction crews will be briefed on the need to avoid elderberry shrubs and no vehicles will enter within the 20 feet buffer zone.

Additionally, the following dust control measures will be implemented:

- Water or otherwise stabilize the soil prior to ground disturbance
- Cover haul trucks
- Employ speed limits on unpaved roads
- Apply dust suppressants
- Physically stabilize soil with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization
- Reduce number of vehicle trips
- Install one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved public roadway to control carry-out and trackout
- Minimize vegetation clearing
- Revegetate post-construction

Elderberry shrubs that cannot be avoided would be transplanted, if technically feasible. All elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level would be transplanted to a Service approved conservation area between November 1, 2008 and February 15, 2009.

Each elderberry shrub with stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected would be compensated with elderberry seedlings or cuttings in accordance with the Service's 1999 VELB Guidelines (Guidelines).

Elderberry shrubs that cannot be feasibly transplanted will be compensated at a ratio two-times the normal amount. A minimum survival rate of at least 60 percent of the elderberry shrubs would be maintained throughout the monitoring period. If survival drops below this level, additional seedlings would be planted. Stock for plantings would be obtained from local sources.

Native plants associated with elderberry shrubs at the Action Area or similar reference sites would be planted in accordance with the Guidelines. A minimum survival rate of at least 60 percent of the associated native plants would be maintained throughout the monitoring period. If survival drops below this level, additional seedlings or cuttings would be planted. Only stock from local sources would be used, unless such stock is not available, per the Guidelines.

4.2.2 California Red-Legged Frog

4.2.2.1 Analysis of Effects

There have been no recorded sightings of the California red-legged frog within or near the Project area; therefore, the California red-legged frog is not likely to occur within the Action Area. No adverse effects to the California red-legged frog are expected with the construction of any Proposed Action features. However, to verify that frogs are not within the Action Area Reclamation proposes to conduct frog surveys.

4.2.2.2 Proposed Conservation Measures

Prior to project activities, a USFWS-approved biologist would conduct surveys to ensure no California red-legged frogs are present within or near the Proposed Project area. If any California red-legged frogs are observed within or near the Project area, Reclamation will reconsult with USFWS.

4.3 Cumulative Effects

Cumulative effects include the effects of future state, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological assessment. Federal actions that are unrelated to the proposed action are not considered in this section because they will be subject to separate consultation, pursuant to Section 7 of the ESA. However, these actions are described below to provide an inclusive discussion of projects in the Action Area.

Other projects proposed in the immediate vicinity of the Action Area include the Folsom Dam Safety/Flood Damage Reduction (DS/FDR) Project, Folsom Bridge Project, Common Features, the Auburn Folsom Road-Widening Project, the Water Supply Pipeline for San Juan Water Districts, and the Sacramento Municipal Utility District Transmission Line Project. The Folsom Dam Road Closure and the Folsom Historic District Traffic Calming Program are not likely to affect biological resources and are not included in this evaluation.

4.3.1 Past or Ongoing Projects

The draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and the Supplemental Finding of No Significant Impact/Environmental Assessment (FONSI/EA) for the Folsom DS/FDR project (Reclamation 2006, Reclamation 2008b) found that there would be adverse affects on the VELB and that there would be no affects on the California red-legged frog. These documents provided conservation measures to reduce any potential effects to the VELB.

The draft EIS/EIR for the Folsom Bridge Project (Corps 2006) found there would be no adverse effects to the VELB or California red-legged frog.

4.3.2 Future Projects

The Sacramento Municipal Utility District Transmission Line Project will result in limited effects to native vegetation. Construction activities will primarily take place in areas already affected either by the Folsom Bridge Project or the Folsom DS/FDR Project.

Construction activities for the Water Supply Pipeline Project for the San Juan Water District Project would be implemented concurrently with, and generally within the footprint of, construction activities implemented for the Folsom DS/FDR Project. Therefore, they would not contribute appreciably to additional direct or indirect effects.

4.3.3 Effects

The Proposed Action would combine with effects caused by the projects described above to result in a cumulative negative effect on Action Area habitat. Construction activities would remove habitat; consequently, affecting listed species that use this habitat such as VELB. As a result there could be an adverse cumulative effect of the Proposed Action on listed species. However, ESA consultation will require conservation measures to reduce any potential effects.

4.4 Effects of Interdependent and Interrelated Actions

There are no known interdependent or interrelated actions.

4.5 Effects to the Environmental Baseline

The Proposed Action may affect the environmental baseline. Habitat within the Action Area consists of elderberry shrubs that could host the VELB. The majority of these habitats will be maintained in the Action Area during and after construction; however, a limited area includes clearing and grubbing of trees and shrubs. This clearing and grubbing will remove elderberries and trees that could provide habitat for VELB.

4.6 Analysis of Alternate Actions

The only alternate to the Proposed Action is a No-Action alternative. The No-Action alternative would negate any environmental effects from the Proposed Action; however, Reclamation would continue to maintain the existing CCAO facilities. Due to aging facilities, space requirements, and other issues this would eventually require facility upgrades and substantial amounts of construction. Effects would be similar to the proposed project.

Chapter 5
Determination of Effects

Table 5 lists the expected outcome based on the above information and the data collected up to this point. Conservation measures have been proposed for all species that may be affected by the Proposed Action whether or not they will be adversely affected in order to avoid jeopardy.

Table 5
Determination of Effects

		Effects Analysis				
		Species Effects Determination				***Critical Habitat***
Species	***Status***	***No Effect***	***May Affect, Not Likely to Adversely Affect***	***May Affect is Likely to Adversely Affect***	***Beneficial Effect***	***May Adversely Modify***
Valley Elderberry Longhorn Beetle *(Desmocerus californicus dimorphus)*	FT/CH		X (all shrubs to remain in place)	X (all transplanted shrubs)		
California Red-Legged Frog *(Rana aurora draytonii)*	FT/CH; SC	X				

FE= Federal Endangered Species
FT = Federal Threatened Species
FC= Federal Candidate Species
FD = Federal Delisted
FSC = Federal Species of Concern
SC = California Species of Special Concern
CE = California Endangered Species
CT = California Threatened Species
CFP = California Fully Protected Species
CS = California Sensitive Species

5.1 Valley Elderberry Longhorn Beetle

Actions resulting in the loss of elderberry shrubs, the obligate host plant of the VELB, in the Action Area may result in adverse effects to individual beetles, pupae, or larvae as well as loss of habitat. Conservation measures summarized from the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999) are proposed to compensate for effects on the VELB. Additionally, a portion of construction activities would take place during the dormant period for the shrub. However, construction related effects may affect and are likely to adversely affect valley elderberry longhorn beetle in shrubs that require transplanting. For shrubs that will remain in place, the VELB may be affected but is not likely to be adversely affected. Conservation measures have been proposed to reduce any effects that may occur as a result of construction of the Proposed Action.

5.2 California Red-Legged Frog

There have been no recorded sightings of the California red-legged frog within or near the Project area; therefore, the California red-legged frog is not likely to occur within the Action Area. No adverse effects to the California red-legged frog are expected with the construction of any Proposed Action features. However, to verify that frogs are not within the Action Area, Reclamation proposes to conduct frog surveys prior to construction.

Chapter 6
List of Documents

The data and information used in this biological assessment is the best available. There are currently no studies being conducted that would provide additional relevant data. Therefore, this biological assessment is based on the precautionary principle, giving the benefit of the doubt to the species.

An environmental assessment was prepared for this project.

Chapter 7
References

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Chapter 8
List of Contacts/Contributors/Preparers

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Appendix A
Species List

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

November 21, 2008

Document Number: 081121021634

Patricia C. Reed
CDM
555 17th Street Suite 1100
Denver, CO 80202

Subject: Species List for CCAO New Facilities Construction Project

Dear: Mrs. Reed

We are sending this official species list in response to your November 21, 2008 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be February 19, 2009.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 081121021634

Database Last Updated: September 11, 2008

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana aurora draytonii
California red-legged frog (T)

Reptiles

Thamnophis gigas
giant garter snake (T)

Plants

Orcuttia viscida
Critical habitat, Sacramento Orcutt grass (X)
Sacramento Orcutt grass (E)

Quads Containing Listed, Proposed or Candidate Species:

FOLSOM (511B)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting

Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them

for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be February 19, 2009.